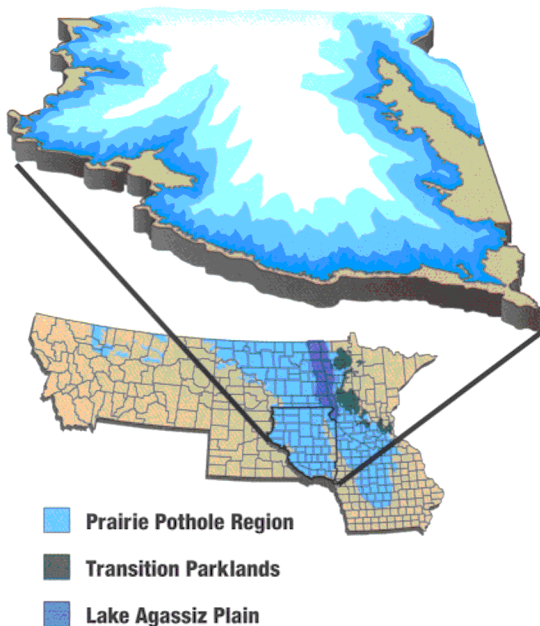


# Eastern South Dakota Wetlands

**M**ost of eastern South Dakota lies in the glaciated **prairie pothole region** of North America, and the landscape is dotted by wetlands sometimes numbering over 100 per square mile. An early settler recalled that as late as 1903:

.... low knolls are separated by saucer-like depressions, in which empounded water often stands the year around .... in the main rainwater which falls upon the uplands has to escape by seepage or evaporation. Little ponds and marshes are found in almost innumerable places scattered all over the county. (2)

The prairie pothole region of eastern South Dakota is the area covered most recently by glaciers and is where wetlands occur at the highest density.



Whether called ponds, marshes, potholes, sloughs, swamps, or low spots, wetlands have been the subject of more legislative hearings, letters to editors, community debates, and disagreements among neighbors than any other feature of the landscape. Factual information is needed before citizens can make informed decisions about the role of wetlands in South Dakota in the next century.

This report summarizes the abundance and characteristics of eastern South Dakota wetlands—the potholes, impoundments, natural lakes, rivers, and other water bodies mapped by the National Wetlands Inventory (NWI). Earlier wetland inventories often underestimated wetland acreage because they focused on specific types of wetlands, for example, only those valuable for duck production or only those deep enough to hold water for a certain length of time.

The NWI mapped wetlands without regard to specific functions or size. Therefore, this report is based on the most comprehensive inventory of eastern South Dakota wetlands ever conducted.

When controversy erupts over wetlands, especially in agricultural regions like eastern South Dakota, sides are usually drawn over issues of property rights, economics, and wetland values. Some people, farmers who have a direct economic stake in how wetlands on their property are used, believe the most appropriate use is drainage followed by crop production. Others rally to preserve wetlands, but their arguments often are based on less quantifiable values.

During the early settlement period, wetlands were generally regarded as wastelands and impediments to agriculture and travel. Yet even then, wetland benefits were recognized.



The site of the first settlement in Kingsbury County was chosen because of nearby wetlands. A pioneer recalled that:

As we came from near New Ulm, Minn., and finding lots of sloughs lying between Lake Badger and Lake Thistad, and [as] these sloughs were covered with muskrat houses, [we] decided to locate here and build these dugouts and spent the winter here trapping. (4)

Agricultural drainage of eastern South Dakota's wetlands began in the late 1800s. One of the first cooperative drainage ditches was dug in 1886 by a group of Clay County farmers. A year later, construction of a similar ditch was blocked in court by farmers who objected to the ditch crossing their lands.

Drainage increased after WWII in conjunction with high crop prices and more mechanized farming. For many years, the U.S. Department of Agriculture (USDA) provided technical and financial assistance to help farmers drain wetlands.

As concerns increased about the effects of wetland drainage on wildlife, the U.S. Fish and Wildlife Service (USFWS) began paying landowners to preserve wetlands. Easements are a one-time payment to landowners who agree not to drain, burn, fill, or level their wetlands. The USFWS also purchased wetlands outright. As of 1997, revenue from federal duck stamp sales had purchased about 700 Waterfowl Production Areas (WPAs) and perpetual easements on about 25% of remaining eastern South Dakota wetlands, all from willing sellers.



*Over the years, attempts have been made to drain millions of acres of wetlands*



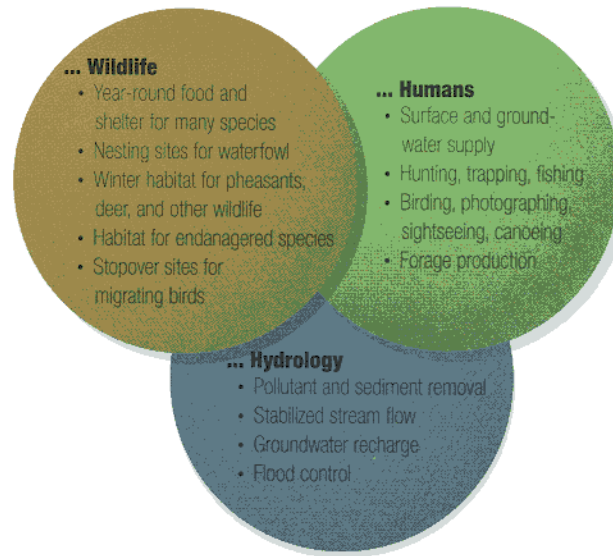
Confusion about the importance of wetlands is understandable. For years, one department of the government paid for wetland drainage while another paid to prevent it.

Today, we know much more about how wetlands help maintain a healthy environment for humans and wildlife, and both agricultural and nonagricultural interests are beginning to appreciate the role wetlands play in the eastern South Dakota landscape.

That role often is divided into three critical segments:

- (1) benefits to wildlife,
- (2) benefits to humans, and
- (3) contributions to the normal movements of water throughout the landscape, known as hydrology.

#### Contributions of wetlands to ...



*Canada geese and other wildlife use wetlands in cropland*





*Mallards, the most abundant duck species in the prairie pothole region*



*Muskrats create openings in wetland vegetation that benefit other wildlife*



*Damselflies*